Product Name: Human CX3CR1 Full Length Protein, Displayed on Virus-Like Particles (VLPs)

Product Code: CMP-25307

FOR RESEARCH USE ONLY (RUO)

Protein Name: CX3CR1

Alternate Name(s): fractalkine receptor, G-protein coupled receptor 13, GPR13, CCRL1, CMKBRL1, CMKDR1, GPR13, GPRV28, V28, C-X3-C motif chemokine receptor 1

Expression Host
HEK293T

Amino Acid Range
Met1 – Leu355

Protein Construct
CX3CR1 full length protein, displayed on Virus-Like Particles (VLPs) mimics the native protein conformation on the cell surface. Expressed in HEK293T cell line.

SDS-Page Molecular Weight
kDa.

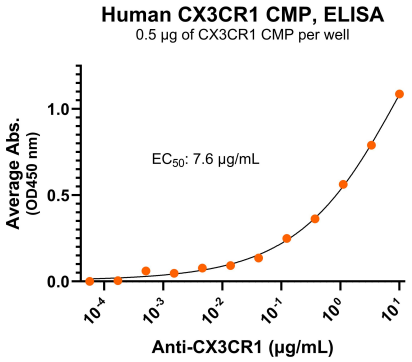
Purity

Formulation
0.45µm filtered PBS, pH 7.4

Stability & Storage
-80^{0}C

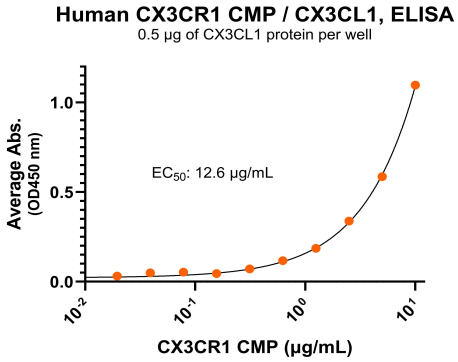
Shipping Conditions
Frozen Dry Ice

Antibody Binding



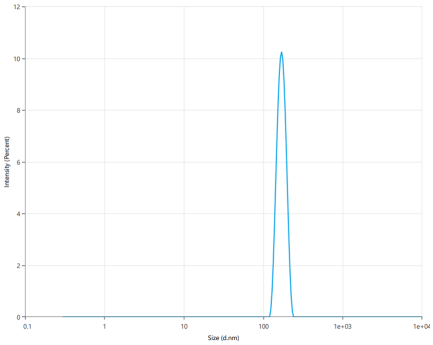
Immobilized human CX3CR1 VLP (Cat. No. CMP-25307) at 5 µg/mL (100 µL/well) can bind monoclonal anti-human CX3CR1 antibody with half maximal effective concentration (EC50) range of 3.8-15.2 µg/mL (QC tested).

Ligand Binding



Immobilized human CX3CL1 protein at 5 µg/mL (100 µL/well) can bind human CX3CR1 VLP(Cat. No. CMP-25307) with half maximal effective concentration (EC50) range of 6.3-25.2 µg/mL (QC tested).

DLS



The mean peak diameter (nm) of the CMP is 156.3 with a range of 146.3-166.3 with more than 95% intensity as determined by dynamic light scattering (DLS).

Background

Human CX3CR1 (CX3C motif chemokine receptor 1) is a seven-transmembrane protein and a member of the G protein-coupled receptor 1 (GPCR1) family. It is the only known member of the CX3C chemokine receptor subfamily. CX3CR1 is also known as fractalkine receptor or G-protein coupled receptor 13 (GPR13). CX3CR1 integral membrane protein containing three intracellular loops and an internal C-terminus with a conserved DRYLAIV motif for binding the heterotrimeric G protein, seven transmembrane domains, and three extracellular loops and extracellular N-terminus. CX3CR1 is expressed on numerous cell types, including various cells from hematopoietic lineage such as T lymphocytes, natural killer cells, and macrophages. Interaction of CX3CR1 with its ligand CX3CL1 mediates recruitment of immune cells by migration through chemotaxis and diapedesis as well as mediating migration, adhesion and retention of leukocytes. CX3CR1 increases accumulation of immune cells in affected areas of the body, which can result in aggravation of several diseases such as Rheumatoid arthritis, Renal diseases, Chronic liver disease, and Crohn's disease. CX3CR1 is also a coreceptor for HIV-1, and some CX3CR1 gene variants lead to increased susceptibility to HIV-1 infection and quicker progression to AIDS.